ABSTRACT

A rotational angioplasty device having a handle housing and an exchangeable drive shaft cartridge. The handle housing includes a rotatable prime mover carried by a prime mover carriage which is longitudinally movable with respect to the handle housing. The exchangeable drive shaft cartridge includes a tubular core element, a longitudinally extendible tube, a catheter and a rotatable drive shaft which, near its distal end, has an abrasive tissue removal implement. The cartridge is detachable from the handle housing, the longitudinally extendible tube is detachable from the prime mover. carriage, and the drive shaft together with its tissue removal implement may be attached to and detached from the prime mover, thereby permitting the exchangeable drive shaft cartridge to be selectively attached to and detached from the handle housing. A coupling provided which connects the longitudinally extendible tube to the prime mover carriage while indexing the relative position of the longitudinally extendible tube and the proximal portion of the drive shaft.

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